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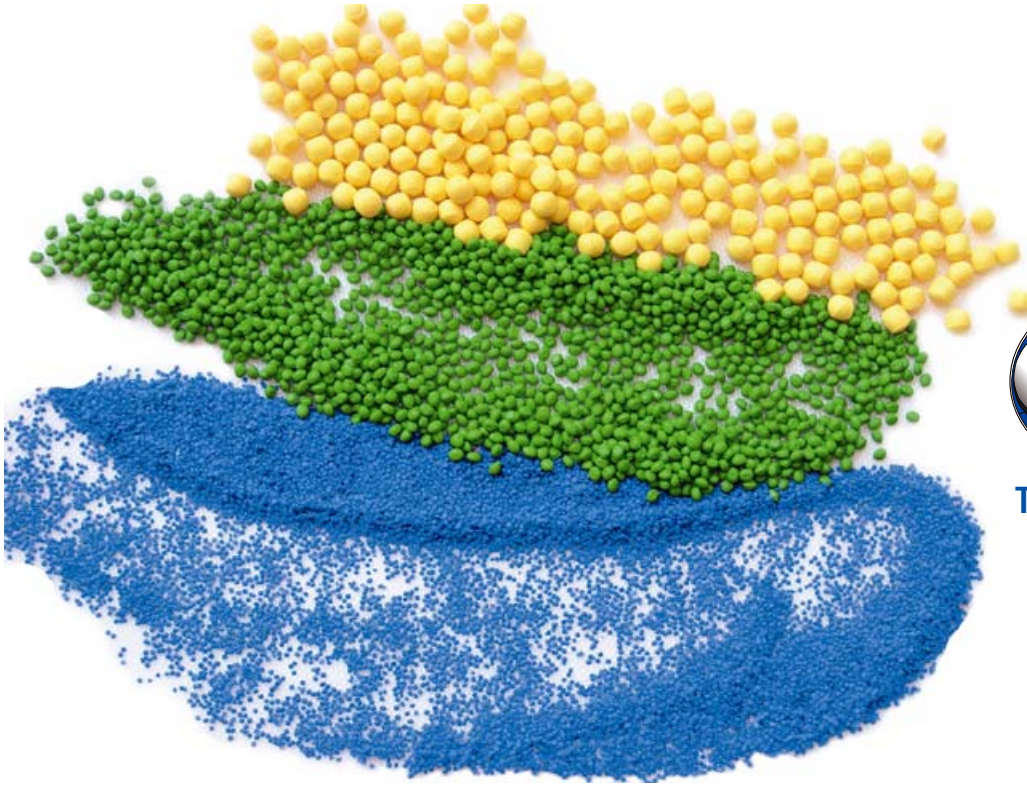
MICROPELLET TECHNOLOGY

Pellet Processing Systems for the Plastics Industry



Gala® TECHNOLOGY

Gala began producing micropellets in 1980. Since that time, the capability of our machines to cut increasingly smaller micropellets has advanced considerably by developing improvements to both equipment and processing technology. Gala's established, dedicated team addresses micropellet inquiries and ensures the best equipment is chosen for each application. We currently have systems running up to 1.5 t/hr of 500 – 600 micron PE micropellets.

Advantages & Benefits

- Better flowability
- Virtually dust-free
- Potentially faster cook times / reduced cook temperatures
- Better color distribution
- Smaller pellets (micros) offer increased surface area-to-volume ratio

MicroPellet TECHNOLOGY by Gala

MICROPELLET TECHNOLOGY

Micropellet ≤ 1.0 mm Minipellet < 2.0 mm >1.0 mm.

Gala Micropellet Die Plate for small pellets

Unique pattern and coloring effect

To produce micropellets, the polymer melt must be supplied at high pressure to the die plate. It should also be filtered to prevent blocking of the die plate holes, which would require the use of a gear pump and screen changer. At the die head, a polymer diverter valve will direct melt accurately to the die.

The die plates themselves are configured to cope with the various demands of the different applications, including the use of extra-low-pressure designs, very thermally efficient characteristics and appropriate hole configurations. The selection of cutter hubs, like the selection of die plates, is derived from many years of extensive experience in this area.

The micropellet tempered water systems are variants of the successful standard Gala units, and feature Gala centrifugal dryers suitable for the micropellet application. Special high-performance ML screens enhance the drying efficiency.

Gala micropelletizing systems are customized to suit the size and output specification of the production requirement. We can supply lab units as well as large production units for micropellet applications. The nature of the material will determine the minimum pellet size possible, but certainly sizes of 400-500 microns are common.

The first question most people ask when confronted with very small micropellets is, "What are they used for?" This is why the Gala micropellet team is application oriented. It is not unusual to find us involved with the end process.

Applications:

- LLDPE
- LDPE
- MDPE
- HDPE
- XLHDPE
- PP CoPo
- PP Homo
- TPO
- TPU
- Polycaprolactone
- PA66
- PA6
- PA11
- PA12
- PC
- PET – Co
- PET – G
- EVA
- PB
- ABS
- PVdF
- PVC – flex
- EPS
- CPE
- Toner
- TPEV
- TPE
- Some wax-type materials

ROTOMOLDING – Micropellets offer advantages not only for small, intricate technical moldings, such as offering higher bulk density and high part definition, but also for large part moldings where reduction in cycle times or temperatures is experienced. A major advantage over powder is the elimination of the two-step compounding and grinding operations, replacing it with the single-step compounding micropelletizing operation. Most importantly, micropellets offer a dust-free alternative to powder.

MASTERBATCH – Minipellets and micropellets allow very accurate dosing at low rates (e.g., for transparent colors). These minipellets allow for better distribution, giving a high-end premium product quality.

OTHER APPLICATIONS ARE WIDE AND VARIED, but include sintering applications (e.g., filter media), clothing decoration, flooring and sports surface applications, toner, insecticide applications, etc.

New applications for micropellets are continually being developed. Please contact Gala to discuss your needs.

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Global contacts, see **www.maag.com**
Contact us at **contact@maag.com**

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